

Student Name:

id:

Sect:

Serial#:

University of Bahrain  
College of Information Technology  
Department of Computer Science

ITCS241: Assembly Language Programming      Debug Commands      Quiz #4

\*\*\*\*\*

For questions from 13 to 17, CIRCLE the BEST CORRECT answer.

- 13) The debug command that allows you to store the value FFH in the byte 1880H is  
 a) d 1880 FF      b) e 1880h FFh      c) d 1880h FFH      ☒ d) e 1880 FF      e) None
- 14) The debug command that allows you to reload the same program and restart its execution (debugging) is:  
 a) T      b) G      ☒ c) L      d) N      e) None
- 15) The debug command that allows you to display the contents of the first 40 bytes of the code segment is  
 a) d SS:0 27      b) e ES:0 40      c) d SS:0 28      d) d SS:0 40      ☒ e) None
- 16) The debug command that allows you to display the object and source codes stored at memory locations between addresses 100H and 240H is \_\_\_\_\_  
 a) G 0 240      b) E 100 240      ☒ c) U 100 240      d) U 100h 240h      e) None
- 17) The debug command used to display the contents of next 16 bytes starting at address 2000H is \_\_\_\_\_  
 a) d 2000 2016      b) G =16      ☒ c) d 2000 200F      d) d 2000 2010      e) None

- Carefully study the given below debug snapshot and answer questions (18 and 24):

```

1380:0100 B90800      MOV     CX,0008
1380:0103 BF0002      MOV     DI,0200
1380:0106 BB5001      MOV     BX,0150
1380:0109 8B07        MOV     AX,[BX]
1380:010B 8905        MOV     [DI],AX
1380:010D 83C302      ADD     BX,+02
1380:0110 47          INC     DI
1380:0111 47          INC     DI
1380:0112 E2F5        LOOP    NEXT
1380:0114 B44C        MOV     AH,4C
1380:0116 CD21        INT     21
  
```

```

AX=0000 BX=0000 CX=0017 DX=0000 SP=FFEE BP=0000 SI=0000 DI=0000
DS=1380 ES=1380 SS=1380 CS=1380 IP=0110 NV UP EI PL NZ NA PO NC
1380:0110 47          INC     DI
  
```

- 18) The object code of the ADD instruction is 92C302 ✓
- 19) The physical address of the location containing the first byte of ADD instruction is 1380:010H+010D ✓
- 20) The next instruction to be executed is INC DI ✓
- 21) The offset address of the location containing the first byte of LOOP instruction is 0112 H. ✓
- 22) The length of the ADD instruction is 3 bytes. ✓
- 23) The total length of the above code is 24 bytes. ✓
- 24) The debug command used to execute instructions from MOV BX, 150 and stop at MOV AH, 4C is G=0105/0114 ✓

Student Name: \_\_\_\_\_

Student id: \_\_\_\_\_

Serial #: \_\_\_\_\_

University of Bahrain  
Department of Computer Science

College of Information Technology  
ITCS241: Assembly Language Programming

#### Quiz #4: IO using Irvine Procedures

\*\*\*\*\*

Write a sequence of statements to:

- Randomly generate 100 signed values in the range from -128 to +127.
- Store the sum of all generated values in a variable named SUM.

arr word 10 dup (?)  
sum word 0

call Randomize  
mov eax, 255  
mov ecx, lengthof arr  
mov esi, offset arr  
LO: call RandomRange  
sub eax, 128  
mov [esi], ax  
add sum, [esi]  
add esi, 2  
loop LO